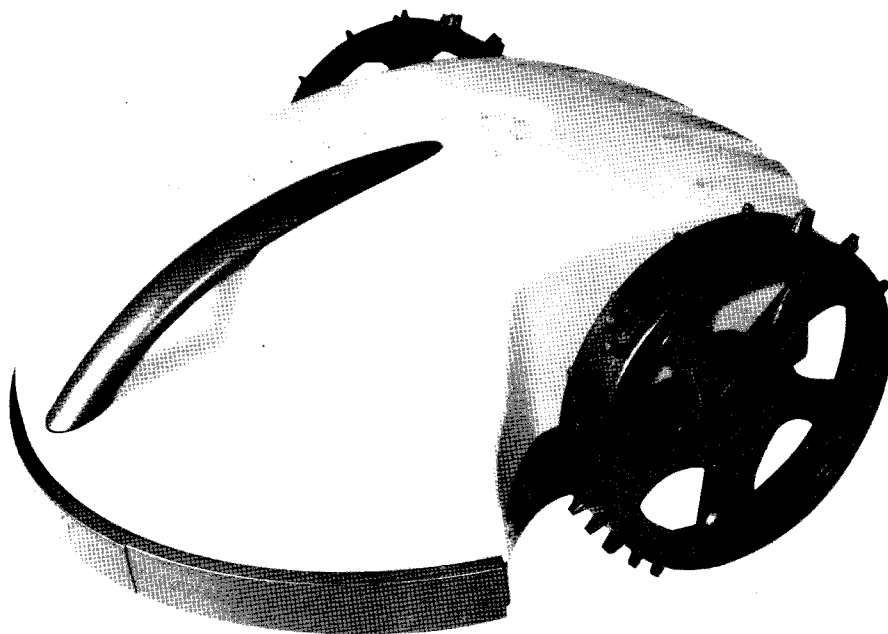


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# **ROBOT MOWER USER MANUAL**



**TC-G158**  
**CE ROHS**

Please read this manual before use  
Please keep this manual for future reference

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# CONTENTS

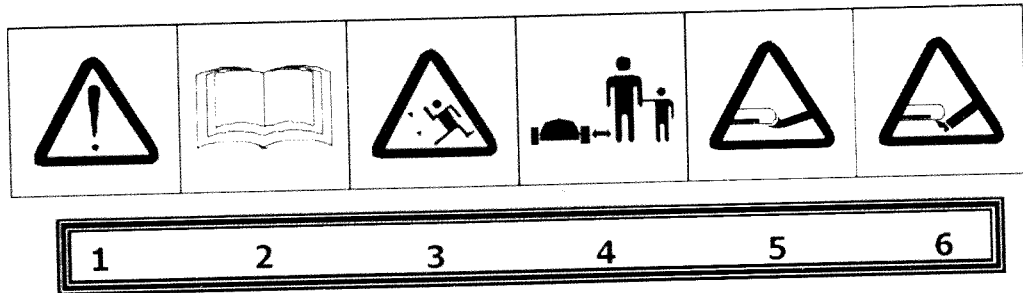
<b>Section 1</b>	<b>Safety information .....</b>	<b>1</b>
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## **SAFETY WARNINGS & PRECAUTIONS**

1. Read the owners/operating manual carefully and follow all safety and warning instructions.
2. This machine has sharp rotating blades! Never allow the mower to operate unattended; keep bystanders, children and pets away from mower when in operation.
3. Never allow anyone to ride or ait on mower.
4. Never allow children or person who is not familiar with the safe operation of the mower to operate the mower.
5. Keep hands and feet away from the cutting blades and other moving parts.
6. Never attempt to service or adjust the mower while it is in operation.
7. Inspect and clear the mowing area of all debris before operating the mower.
8. Never raise the mower or attempt to inspect the blades while the mower is operating.
9. Always turn off the power before lifting the mower or attempting any adjustments.
10. When operating the mower in manual mode, maintain a safe distance from behind or around the mower and wear proper foot apparel.
11. Do not operate the mower on slopes greater than 20 degrees or use it in manual operation on slopes where a firm footing is not possible.
12. Do not operate the mower if any safety feature or device is damaged or inoperable.
13. Do not attempt to disable or defeat any safety feature or device.
14. Use heavy gloves when inspecting or servicing the blades.
15. Wear eye protection and use gloves when installing the virtual wire and driving the wire stakes/pegs. Firmly drive all pegs in order to keep the wire form becoming a tripping hazard.
16. Do not use the Charging Station power supply with an extension cord.
17. Use only the original equipment power pack and power supply/charger with this mower.
18. Do not use the power supply/charger if the cord has become damaged.
19. Do not place metal objects in the area of the charging contacts on the Charging Station.
20. Do not place metal objects across the charging pins of the Mower.
21. Do not spray water directly into the docking area of the Charging Station or onto the operating panel of the charging station.

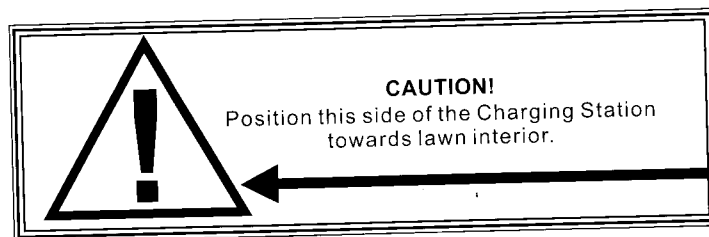
## SAFETY INFORMATION



1. WARNING-this is a dangerous power tool. Use care when operating and follow all safety Instructions and warnings.
2. Read the owner/operating manual carefully and follow all safety instructions.
3. Objects can be thrown from mower while operating, take caution.
4. Keep children, pets and bystanders away from mower.
5. Sharp rotating blades. Keep hands away and do not attempt to lift mower from this area.
6. Sharp rotating blades. Keep feet away.

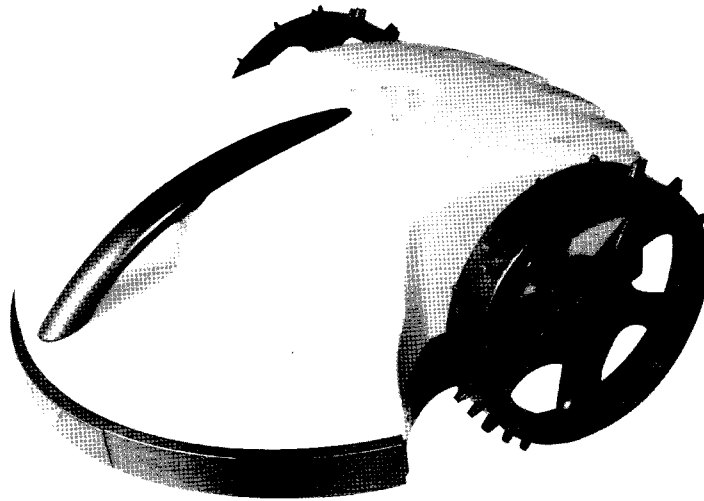


**DANGER!** Sharp rotating blades.  
Keep hands and feet away.  
Serious injury can occur.

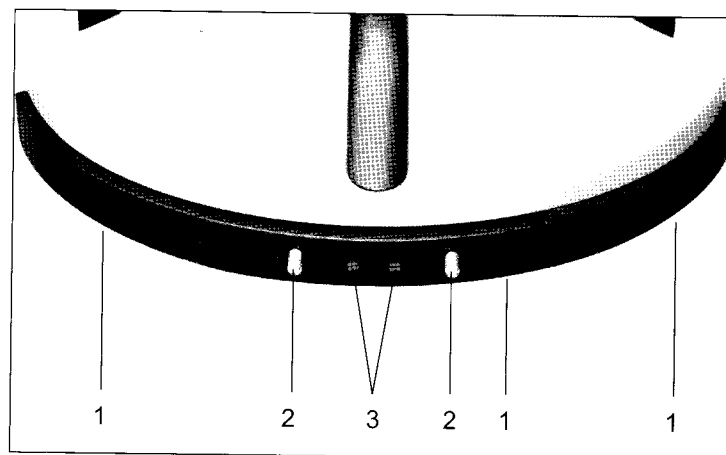


The Charging Station fence must face towards the interior section of the lawn when installed. Failure to do so may result in damage to property or persons.

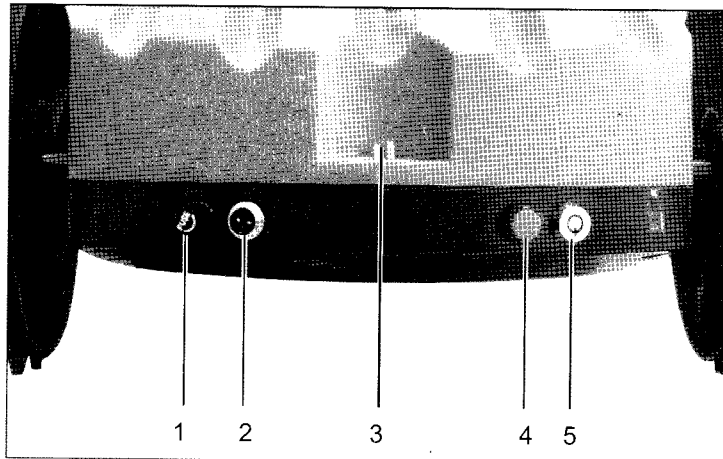
## GENERAL INFORMATION



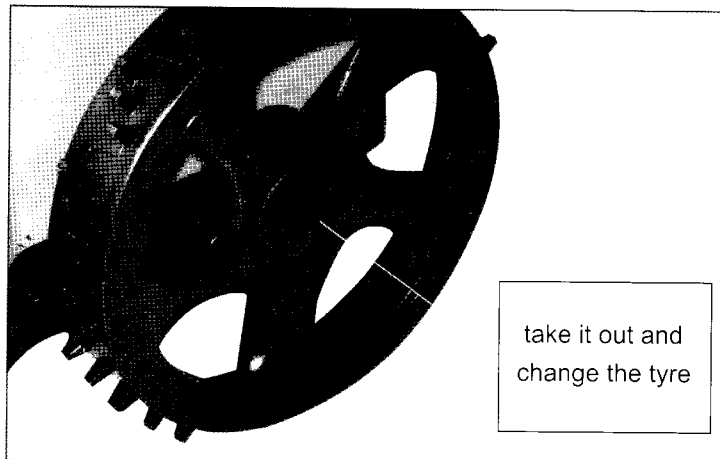
- |                           |  |
|---------------------------|--|
| 1. Mower                  | 6. Stakes for fastening charging station (4pcs ) |
| 2. Remote control         | 7. Pegs for virtual wire (100pcs)                |
| 3. Charging station       | 8. Blades (2pcs)                                 |
| 4. Virtual wire 100meters | 9. Charger                                       |
| 5. Key (2pcs)             | 10. English manual                               |



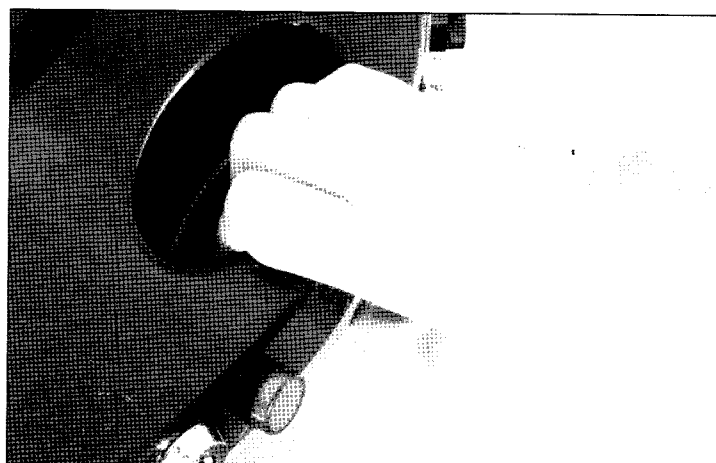
- |  |                 |
|--|-----------------|
| 1. Bumper: The mower meet the obstacle ,It can change the direction to cut grass |                 |
| 2. charging point  | 3. Infrared ray |



1. Fuse
2. Charge
3. Sense of rain  
(it is raining , he will  
go to docking station )
4. Power light
5. Power Switch  
" ☹ " on " ☺ " off



take it out and  
change the tyre





Safety hence , keep off the foot and hand

Charge light

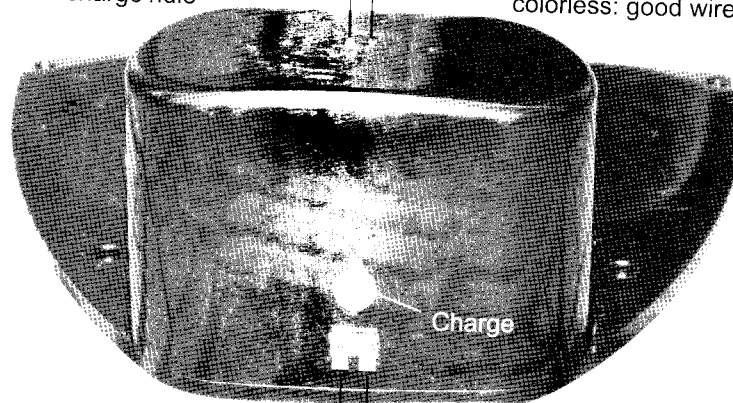
red: charging

green: full charge /idle

Virtual wire light

red: broken wire /idle

colorless: good wire connector



Patch jack, connect the virtual wire randomly ,  
no positive and negative poles



Power

Model : CIRCLE

GO STRAIGHT

L: GO LEFT

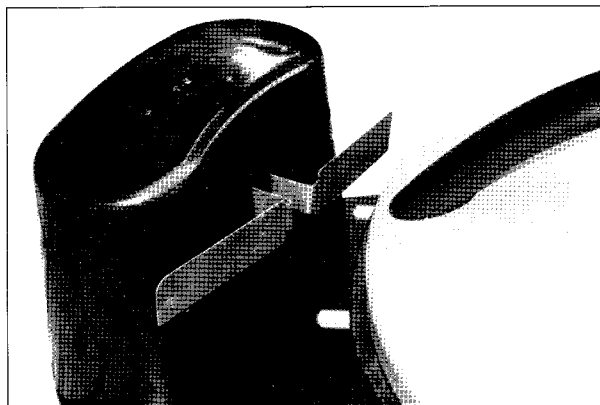
R: GO RIGHT

MOW : Mowing switch

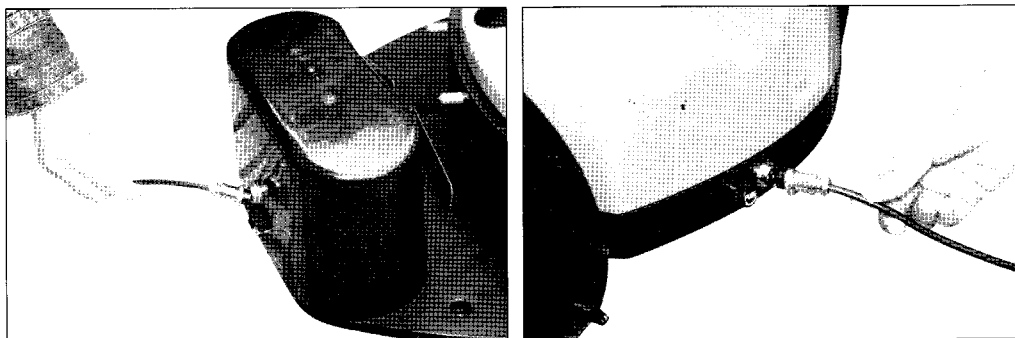
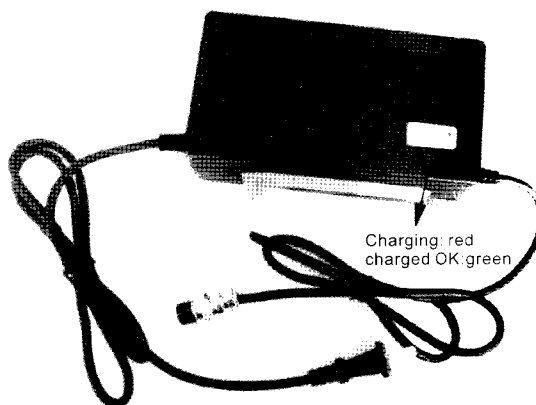
HOME : go charging station

1H: working for one hour

3H: working for three hours



1. The battery is low when he cuts grass , he will recharge and then he will cut again
2. Only when the mower finish charging, he drop back and buzzing (call the owner to turn it off)



Two kinds of charge as above pictures



## TECHNICAL INFORMATION

Power supply input: 100-240V 50/60HZ

Output: 24V

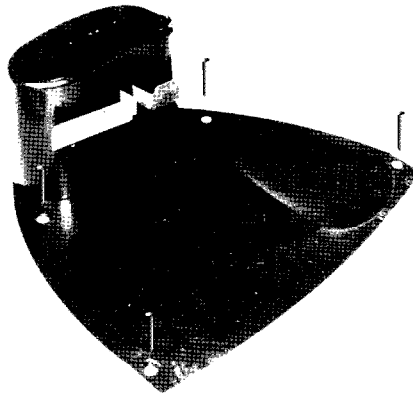
Robot mower technical information

Model	TC-G158
Coverage area /per	600m <sup>2</sup> ± 20%
Suggested area /per	800-1800m <sup>2</sup>
Cutting Power	82W
Fully autonomous	Yes
Self design	Yes
Rain sensor	Yes
Wireless remote control	Within 10meters
Auto recharge	Yes
Blade adjustment	2pcs blade, 14cm/L 1 pc
Anti theft	Yes, 2pcs key
Hill capability	30degree Max slope
G.W/N.W	20KG/17.5KG with Lead-acid batteries 17/14.5KG with lithium batteries
Cut size	3CM/4CM ADJUST
Mower size	56*51*25cm
Battery (be changed)	lead-acid / lithium battery24V, 7.2AH
Security	Lift sensor, buzzer
Waterproof	Yes
Charging time for battery	3-4 hours
Mow rotate speed	6000 rpm ± 10%
Noise	≤65db
Average working time	2-3 hours
warranty	2 years
Battery	1 years

# INSTALLATION

Charging station & Virtual wire set up

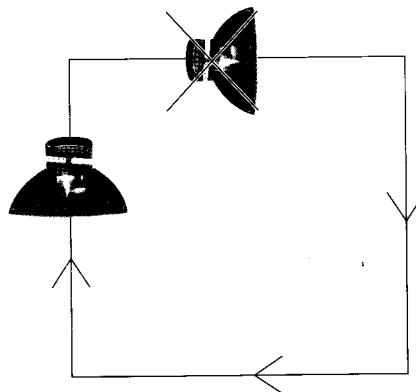
## 1. Charging station



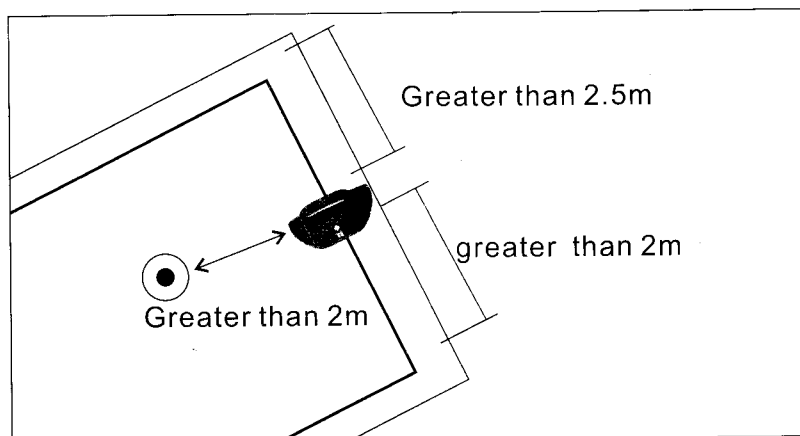
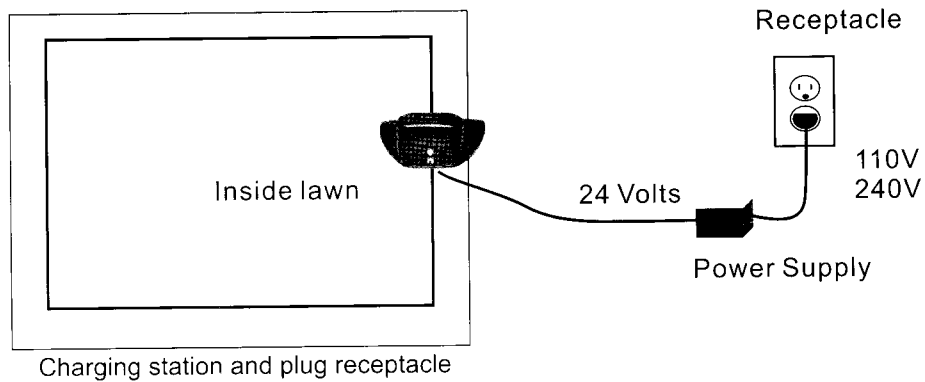
Charging station with stakes

Notice :

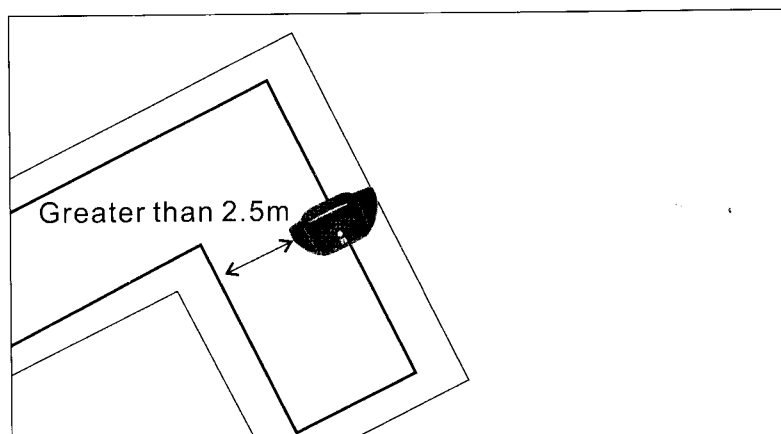
Before fix the station on the lawn , you should examine your lawn and decide the best location. it is easy for the mower to find the station to recharge . check the following pictures :



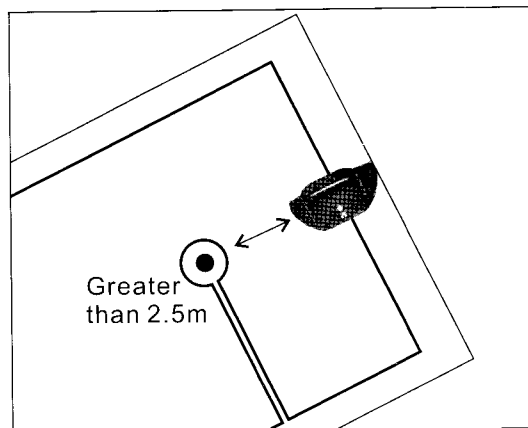
1. Ensure the charging station is placed in a level station that is easy to recharge
2. Ensure there is no obstacle in the front of charging station.
3. Ensure keeping 2-2.5 meters of the straight-line distance in front of the charging station.



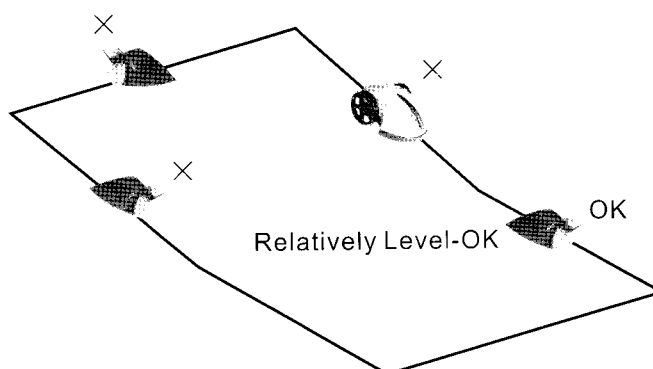
A minimum distances from the charging station and any obstacle is 2 meters. Make sure the distance from corner to charging station is at least 2 meters.



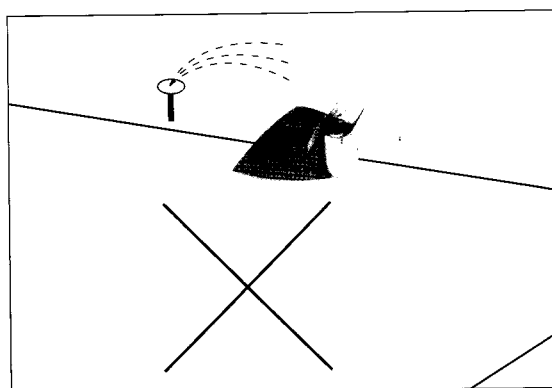
Make sure the minimum distance from charging station and virtual wire is at least 2.5 meters.



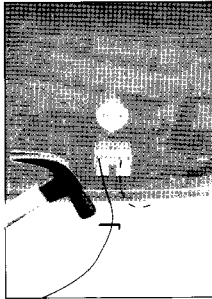
The distance between charging station and virtual loop should at least 2.5 meters.



Please fix the charging station in the level place.



Please keep the charging station away from water.



Hard or dry ground may cause pegs to break when driving them in. In extreme cases, watering the lawn where the pegs will be driven

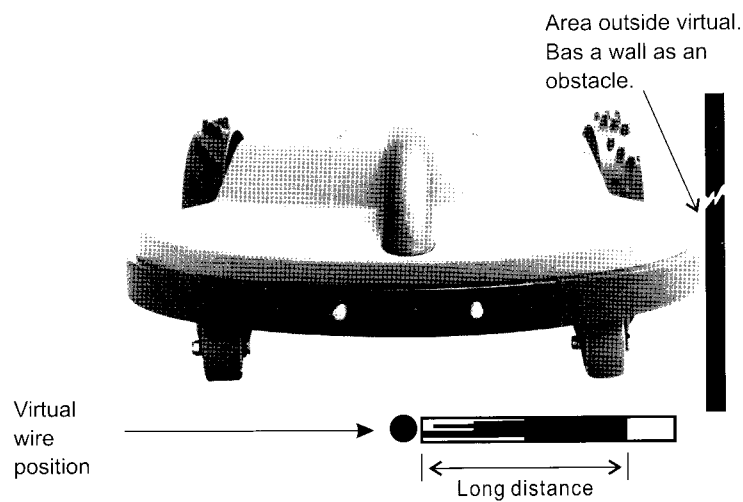
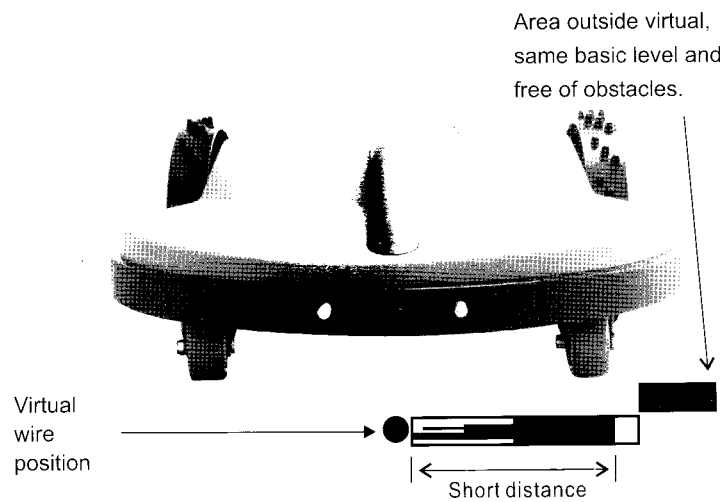
Pay attention to the short distance and long distance .

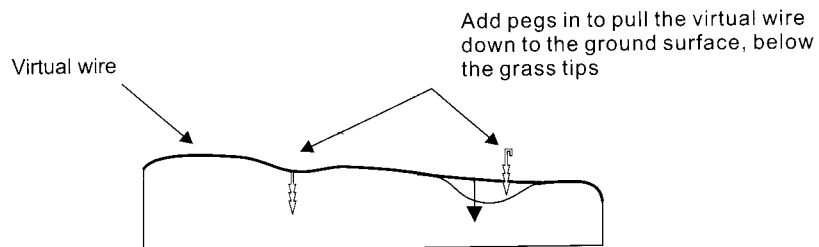
Because the lawn is anomalous in general .

30cm Short distance: area outside is same level or the virtual wire is straight

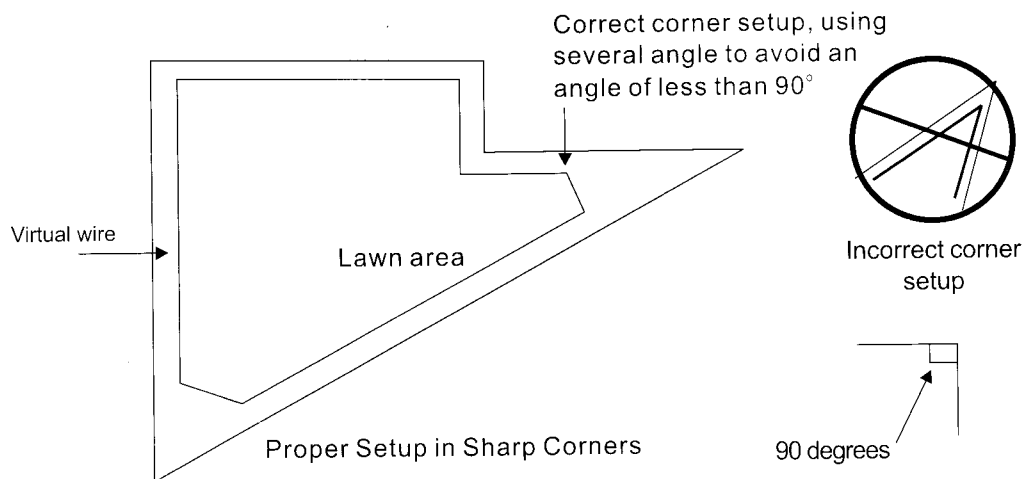
50cm Long distance: area outside is an obstacle or the virtual wire is greater than 90°.

Corner,angel



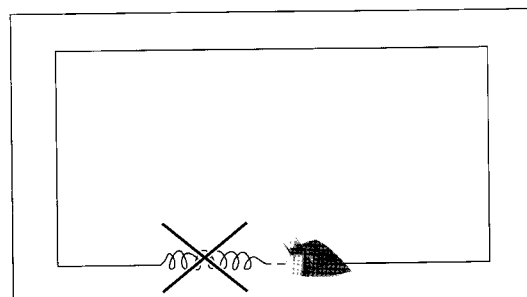


Bury the virtual wire below the grass, possibly fasten on the ground. The mower can not cut the wire and when the grass grows up, we can keep the virtual wire station as before.



Care must be taken not to create a corner sharper than 90 degrees when setting up the virtual wire.

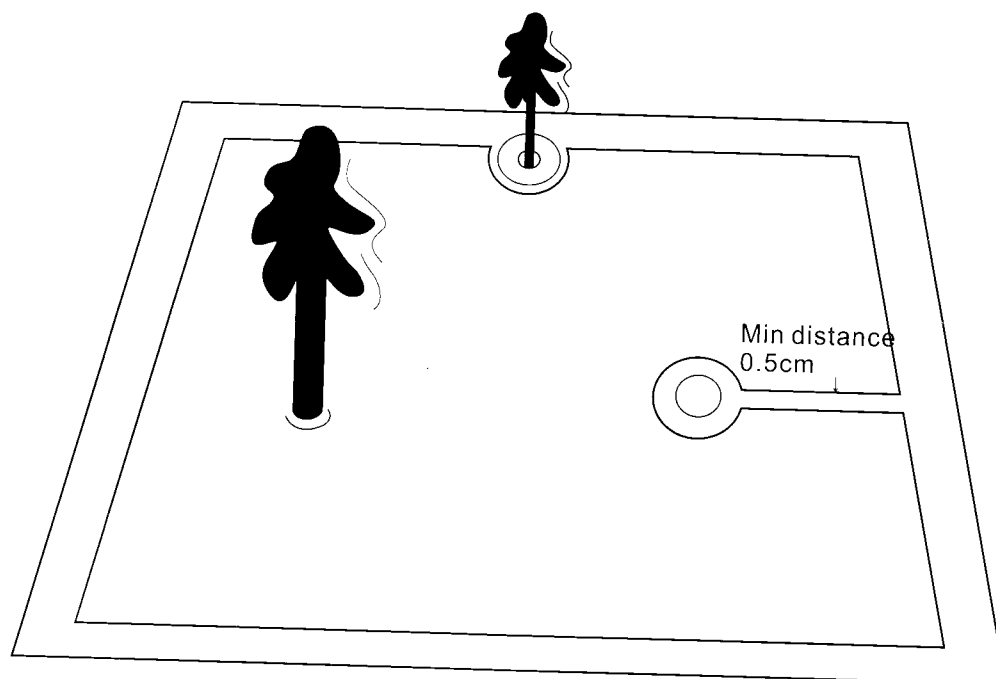
A corner sharper than 90 degrees can cause the Mower to lose track of the virtual wire. We can make greater than 90 degrees corner to avoid this situation



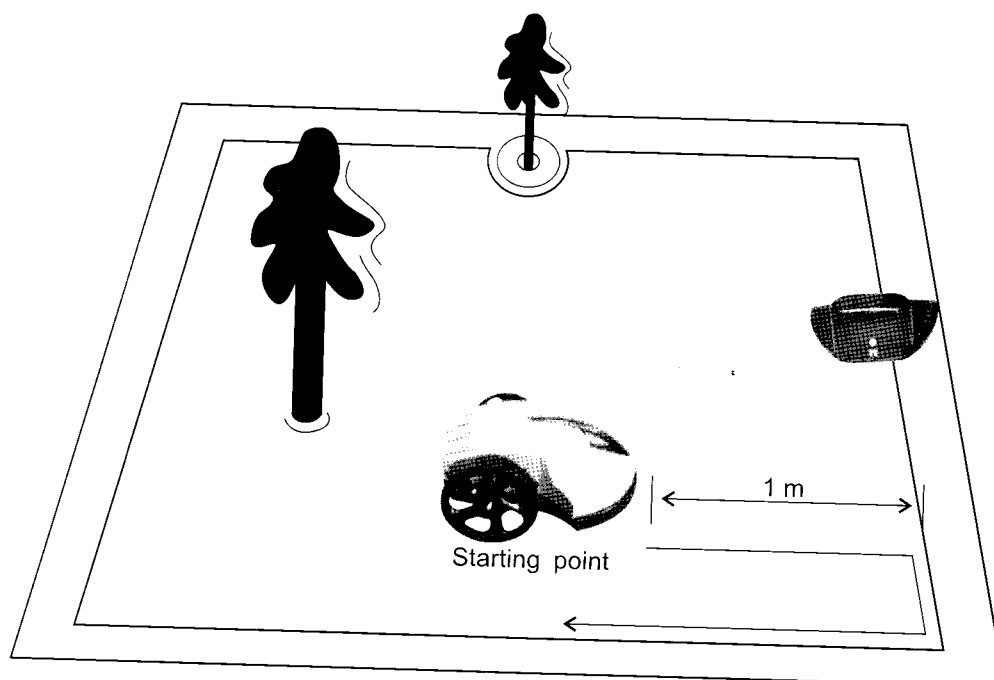
Redundant virtual wire must be cut

A maximum virtual wire length of 300m is recommended. Areas requiring longer lengths should be broken into separate zones.

Follows are some situations ,how to bury the virtual wire .



Bury the virtual wire according to actual lawn.



Position the mower towards the wire after the charging station.

## **MAINTENANCE INFORMATION**

### **BATTERY**

#### **Attentions for Lead Acid Batteries**

1. Please don't remove the batteries privately.
2. Storage
  - (1.) Charge the batteries at least once every six months if they are at 25°C. The interval of this charge should be reduced to 50% by each 10°C rise in temperature above 25°C. The self-discharge rate doubles for each 10°C in temperature. If they are stored for a long time in a discharged state, their capacity may not recover even after charge. If the batteries are stored for more than a year at room temperature, the life of the batteries may be shortened.
  - (2.) Store the batteries starting from the fully charged state to prevent the life of the batteries being shortened.
  - (3.) Use the batteries as quickly as possible after receiving them as they gradually deteriorate even under proper storage conditions.

#### **Attentions for Lithium batteries**

1. Please charge the lithium batteries in accordance with standard time and procedures.
2. When the power is too low, it should be started charging as soon as possible.
3. Activation-The lithium batteries should be normal charged-discharged for 3-5 times to activate electricity back to normal capacity.
4. Storage-We suggest the optimum storage of lithium battery is with 40% power and keep in the shade.



# TROUBLING SHOOTING

## TROUBLESHOOTING

Problems	Possible reasons	Solutions
The mower moves out of the area rounded by the Virtual wire or moves in circle searching for the Virtual wire	<p>The virtual wire fails to send signals.</p> <p>The virtual wire is broken by the mower</p>	Check the virtual wire light. Be sure the virtual wire is connected to the base station that is in motion, and there is no loose place
The mower does not work	<p>1. It is trapped in the lawn;</p> <p>2. It moves to the area where the grass is thick;</p> <p>3. The front wheel is lifted up.</p>	Clear the lawn where the mower is trapped or restart the mower in another place. Then the mower will work in a new circle.
The mower buzzed	<p>1. The "power" button on the remote control is touched</p> <p>2. Front wheel is lifted up</p> <p>3. Blades are plugged up seriously and the power becomes inefficient</p> <p>4. The mower stop when he can not meet the grass in 5 minutes.</p>	<p>1. Press "power on &amp; off" button again.</p> <p>2. Restart the mower.</p> <p>3. Turn off the mower, and charge it manually.</p>
The remote control does not work	The electricity power is low	Change batteries
The batteries can not recharge		Check whether the charger is well connected
Large patches of uncut grass remain after Mower has completed mowing	Power is not fully charged for operation	Charge again until the power light "green"
	Power nearing natural end of life	Replace the battery and follow the maintenance

	1. Grass is extremely overgrown or very wet	1. Cut the grass appropriate height
The bumper does not activate when meeting obstacle	Jiggle switch is broken	Send the mower to provider and repair
Mower gets stuck frequently when traveling optimal terrain	Low ground	Raise ground clearance to the uppermost position
	Cutting height too low	Raise cutting height
	Terrain needs landscaping repairs	Fill in all holes , cover or exclude all exposed roots In order to smooth the terrain
Mower does not complete the edge	Obstacle along the path	Watch the full operation of edge and confirm no obstacle are present
Mower lamp not flashing when the blades are in operation	Faulty power lamp	Replace operating lamp
Mower drives but blades will not mow	Mow on RC has been turned off	Turn on the mower button
Short run time , operates less time than normal	Power is not fully charged for operation	Charge again until the power light "green"
	Power nearing natural end of life	Replace the battery and follow the maintenance
	1. Grass is extremely overgrown or very wet	1. Cut the grass appropriate height
Mower does not detect the charging station contacts	Power supply is not plugged into the main power supply	Confirm power supply is plugged into the main power supply
	No power to plug receptacle or main power is shut off	Check the power Check the plug
	Charging station /the virtual wire corrosion	Check the charging station Contact your provider id the contacts is replaced

Mower is operated in the zone with the charging station but stopped

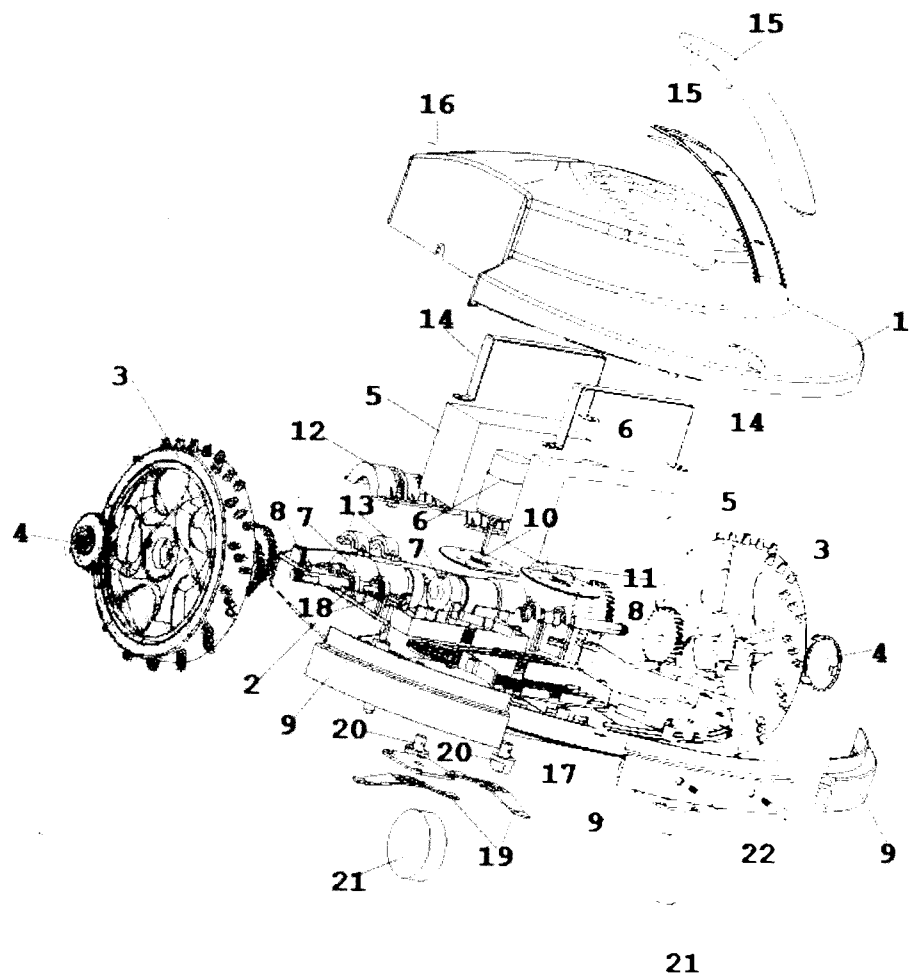
No power

turn off the power by keys and takes it to charge .

Mower reached the charging station when its contacts are above the charging station contacts

Height difference between the charging station base and the lawn surface at the entrance to the charging station

Confirm the ground before the charging station is leveled with the charging station base if necessary fill area with dirt and level off



- |                  |                            |
|------------------|----------------------------|
| 1.Upper cover    | 12.Motor pressure plate    |
| 2.Bottom cover   | 13.Bearing pressure plate  |
| 3.Wheels         | 14.Batten of battery       |
| 4.Shell          | 15.Handle                  |
| 5.Batteries      | 16.Rain sensor copper head |
| 6.DC motor       | 17.Springs copper sheet    |
| 7.Slowdown motor | 18.Bearing                 |
| 8.Axle           | 19.Blades                  |
| 9.Bumper         | 20.Blades post             |
| 10.Motor gasket  | 21.Omni-directional wheels |
| 11.Gear          | 22.Charging copper head    |